

# PATENT ABSTRACTS OF JAPAN

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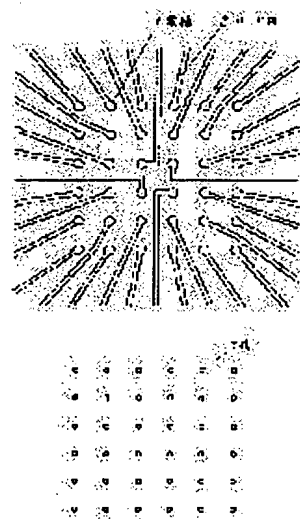
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## (54) COMPLEX ELECTRODE INCORPORATED IN ONE

### (57)Abstract:

**PURPOSE:** To make simply multipoint concurrency measurement and make the observation of signal transfer extending among many cells by the complex electrodes incorporated in one which are provided with a wiring element radially arranging lead wires from the plural electrodes whose the distances between the nearest electrodes are equal each other, and a insulating layer having holes on the electrodes.

**CONSTITUTION:** Exposure is made with photoresist so as to become the pattern of electrodes 1 and lead wires 2 of the shape in which the centers of electrodes are located at the several intersections on a grid of  $6 \times 6$ , center distances between the nearest electrodes of several electrodes are equal, and moreover, lead wires extend radially. Then, the photoresist is removed after ITO is made etching in the solution in which pure water 50, hydrochloric acid 50 and nitric acid 1 are mixed with volume ratio. The wiring element in which the diameter of the electrode 1 is  $15\mu\text{m}$ , the width of the lead wire 2 is  $10\mu\text{m}$ , the center distance of electrodes is  $100\mu\text{m}$ , is formed. Next, negative photosensitive polyimide (hereinafter abbreviated to NPI) is made spin coating as an insulating layer so that the thickness after drying is  $1\mu\text{m}$  and the insulating layer pattern is made the exposure formation so that holes 3 of diameter  $10\mu\text{m}$  are made at the centers of several electrodes of the wiring element.



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